

Community Engagement Conference

Partnering to Advance Health and Wellness



IGNITE

January 24 and 25, 2018

The STEAM Factory: Building a Community of Engaged Academics

- **Presenter: Jim Fowler** –
assistant professor, Mathematics Department



THE OHIO STATE UNIVERSITY

Q: *How can we inspire researchers to reach out into the community?*

A: Through the **STEAM Factory**, a diverse and inclusive grass-roots network in the Ohio State community that facilitates creative and interdisciplinary collaboration, innovation, outreach and education.



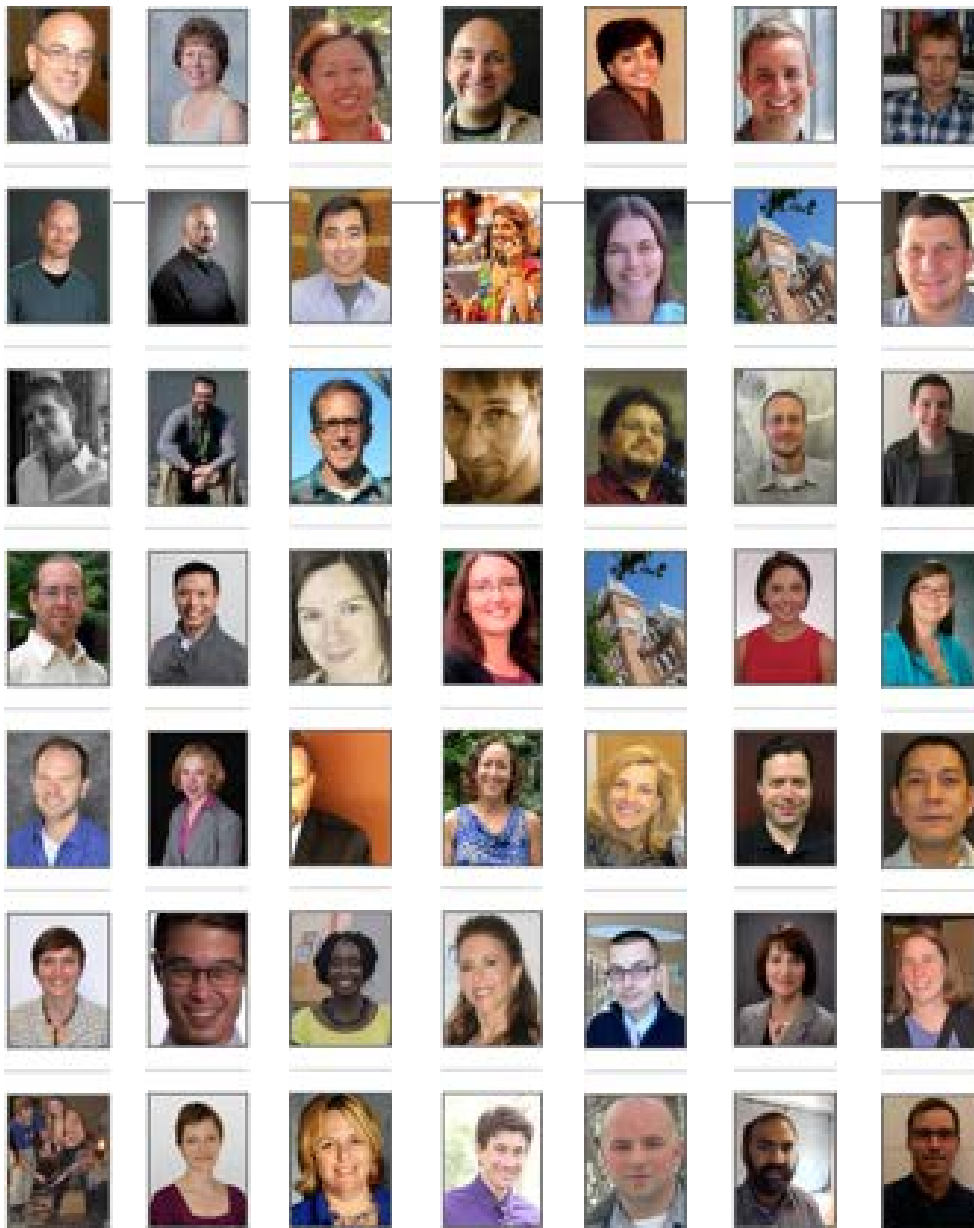
Q: What does the **STEAM** Factory do?

Facilitate collaboration.

Provide internal links between Ohio State departments and colleges

Provide external links to increase public awareness and understanding of Ohio State research





**150 Faculty, Postdoctoral
Researchers, Research
Scientists, Lecturers, Staff**

>82 Departments

**38 College, Centers,
Institutes and Offices**

**Gender composition evenly
split**

Two-thirds Junior Faculty

History

Co-founders



Roman Holowinsky
Mathematics



Jim Fowler
Mathematics



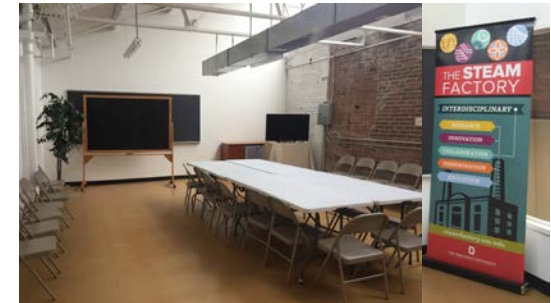
Arnab Nandi
Computer Science

2011

Junior Faculty
Meet-up group

2013

Ohio State Outreach
& Engagement
Grant



2012

Professional
Development
Grant
Pilot ideas for
innovation hub

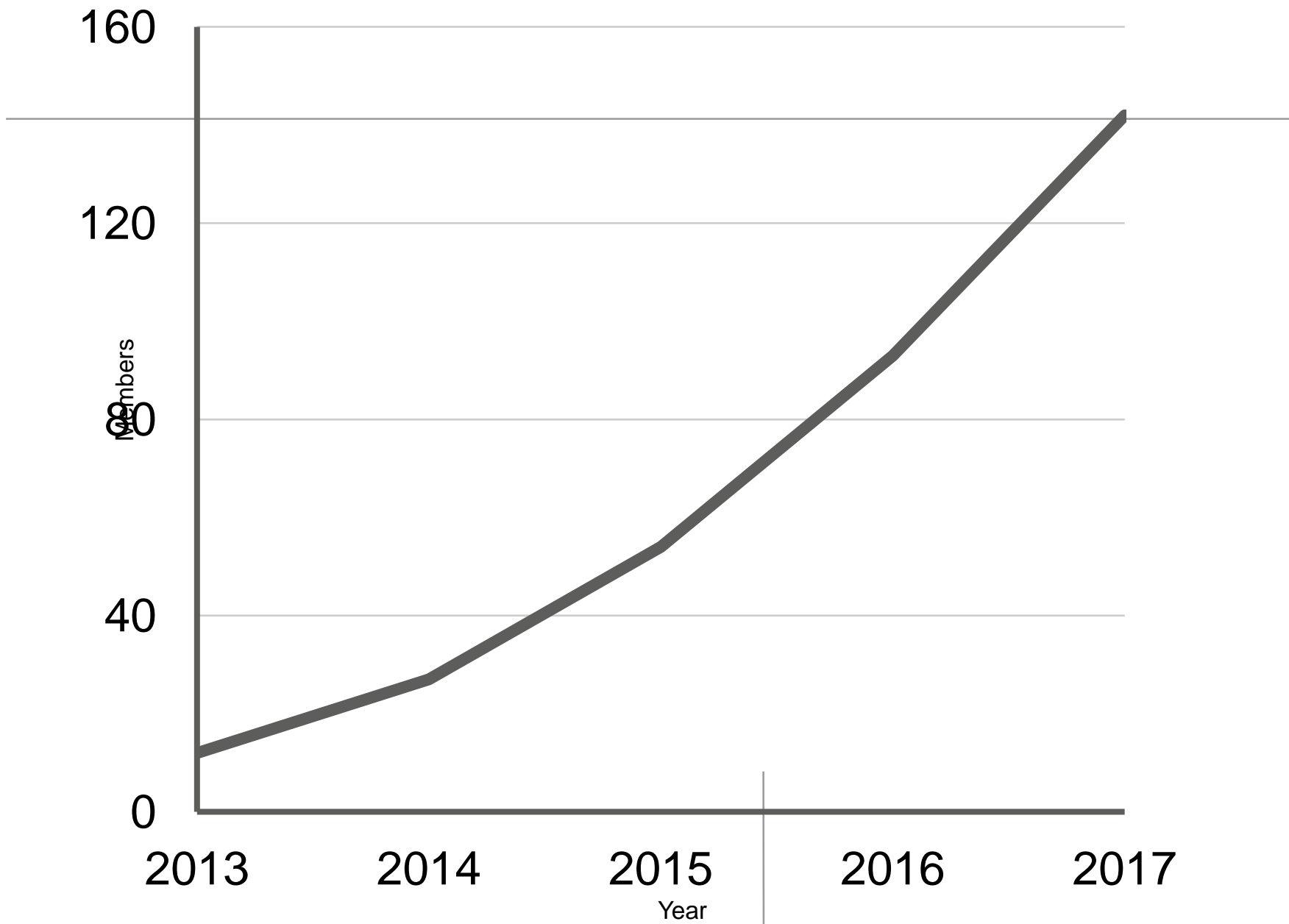


2014

The STEAM Factory
@ 400 W Rich St

MOU w/ 7
Colleges/Offices at
Ohio State

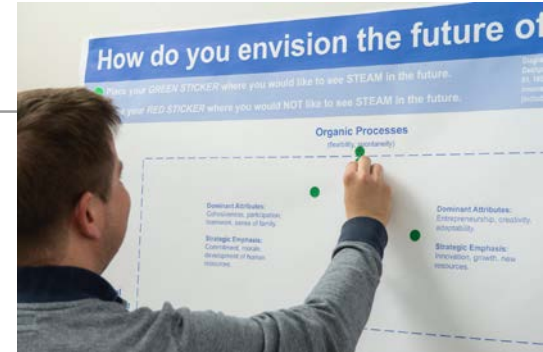
STEAM Factory Membership



Co-working Space

encouraging collaborations





Collaboration and Co-working Space
discovered, designed, and built by members

...co-located in a great
downtown location
surrounded by other creatives



STEAM Factory reaches out to the community at farmers' markets, local festivals, Franklinton Fridays.

We're connecting Ohio State researchers with a diverse audience.

>180 Outreach events,
with >70 faculty presenters,
and >130 student presenters.

100 – 1000 people at each event.



The result?
**Multidisciplinary research
based outreach.**



RESEARCH



INNOVATION



COLLABORATION



DISSEMINATION



EDUCATION

Kepler's Music of the Spheres: Harmonies in mathematics, astronomy, and music

Come join us for a 30-minute interactive presentation by three experts at 7pm and again at 8pm.

Featuring faculty from the
Departments of Music, Mathematics, and Physics
The Ohio State University



Dr. Anna
Gawboy



Dr. Matthew
Kahle



Dr. Paul
Sutter

400 W. Rich Franklinton Fridays •

Feb. 12th, 2016, 6pm to 9pm

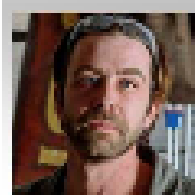
steamfactory.osu.edu

Visit

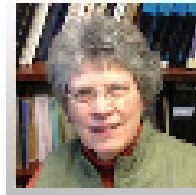
The Market at 400 West Rich in Franklinton

Saturday 11am – 2pm

January 25th
Colorblind



Andrew
Lundberg
Artist
400 West Rich

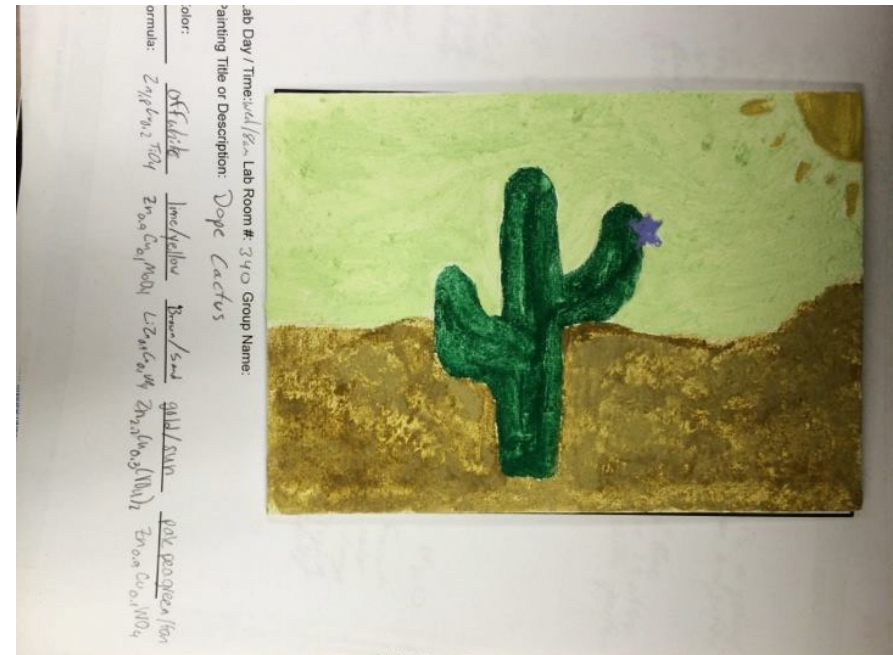
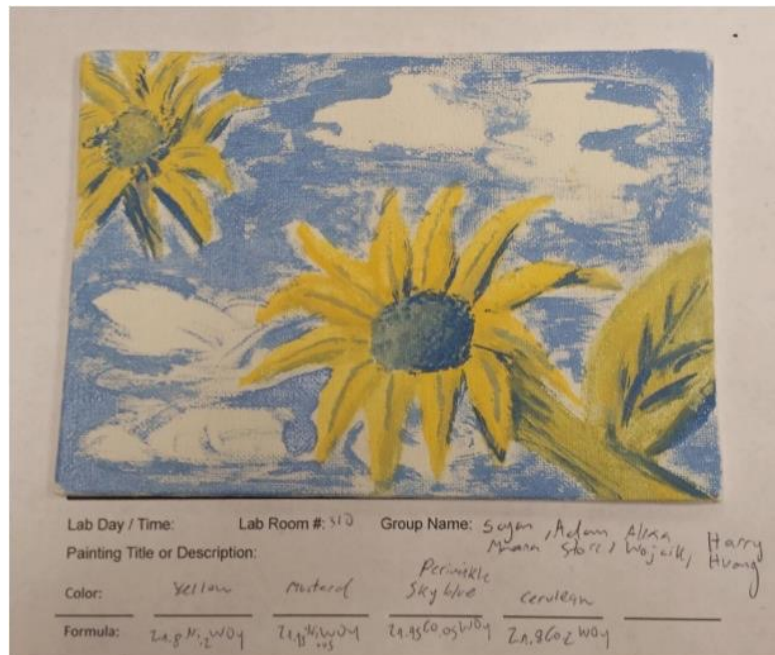


Angela
Brown
College of
Optometry



Delwin
Lindsey
Dept of
Psychology

How does color blindness influence an artist's color selection?



Stimulating young minds



“The opportunity for him to meet and speak to a group of real-life scholars in mathematics, robots, computer animation and physics, then ask them anything he wants to in a casual environment has been so enriching. You cannot find that anyplace else in town.”

-Tracy Zollinger Turner

The HIV Pecha Kucha

A showcase of interdisciplinary work on HIV/AIDS from an advanced interdisciplinary undergraduate course taught by Drs. Kwiek, a virologist, and McDow, a historian, *History/ Microbiology 3704, HIV: From Microbiology to Macrohistory*.

STEAM
FACTORY



Primary Investigator:

Paul Sutter, Ph.D, Visiting Fellow, College of Arts and Sciences, Physics, Astronomy

STEAM Collaborators:

John Beacom, Ph.D, Professor, College of Arts and Sciences, Physics, Astronomy

Leonardo Carrizzo, Ph.D, Lecturer, College of Arts and Sciences, Communication

Mary Tarantino, Ph.D, Professor, College of Arts and Sciences, Theater



Song of the Stars

A ground-breaking cross-disciplinary production engaging astrophysicists, dancers, and filmmakers to create a world-class performance designed to humanize science, awaken curiosity, and intimately connect audiences to the wonders of the universe.



Inreach can support outreach

- ★STEAM Factory runs **STEAM Exchanges**, monthly salon-style seminars that bring together research on a common theme from diverse disciplinary perspectives.
- ★Past topics include bias; blood; community; conflict; food; trees; sustainability.

STEAM Powered Projects

- ★ Micro-grants provide seed funding for interdisciplinary collaborations in research, teaching or outreach between STEAM Factory members
- ★ This work may not be easily fundable through traditional sources
- ★ 13 Projects Funded
- ★ 29 Faculty members
- ★ 22 disciplines

E-Textile Origami

A collaborative project bridging wave physics, art, and mechanics.

Applications as diverse as patient mental health rehabilitation, biophysical monitoring, and engineering structure characterization.

Idea of project: *a foldable e-textile antenna*,
whose conductive surfaces follow an origami tessellation.

The antenna can be integrated into objects as diverse as clothing, toys, and bridges to sense mechanical loads and flexure.



Primary Investigators:

Asimina Kiourti, Ph.D, Assistant Professor - Department of Electrical and Computer Eng



Ryan L. Harne, Ph.D, Assistant Professor

Department of Mechanical and Aerospace Engineering

THE STEAM FACTORY



RESEARCH



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EDUCATION

Structure and Operation

5 Directors



Sathya Gopalakrishnan
Chair



Jim Chen,
Grants & Funding



Jim Fowler,
Public Outreach



Lisa Hall,
Collaborative Research



Sam White,
University Relations

Program Coordinator



Charlene Brenner

Fiscal Officer



John Pieper

THE STEAM FACTORY



RESEARCH



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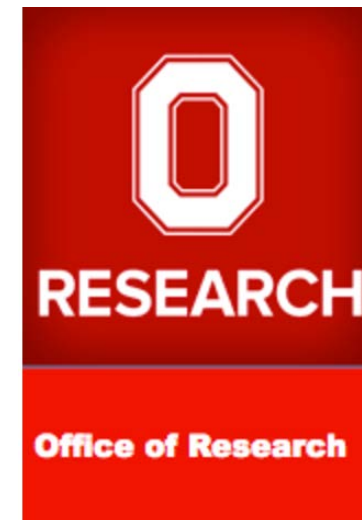


DISSEMINATION



EDUCATION

Sponsors:



- Thank you!

`http://www.steamfactory.osu.edu/`

`http://facebook.com/theSTEAMfactory/`

and on Twitter @thesteamfactory